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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

TRAN, MY CHAU T

ART UNIT

PAPER NUMBER

2629

NOTIFICATION DATE

DELIVERY MODE

08/04/2009

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

gbpatent@gbpatent.com  
pto@gbpatent.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/551,450	<b>Applicant(s)</b> NAKAMURA ET AL.	
	<b>Examiner</b> MY-CHAU T. TRAN	<b>Art Unit</b> 2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 May 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 3 and 5 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4 and 6-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 September 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION**

***Application and Claims Status***

1. Applicant's amendment and response filed 05/05/2009 are acknowledged and entered.
2. Claims 1-19 were pending. Applicants have amended claims 1, 2, 4, 6-8, and 10-19; and added claim 20. No claims were cancelled. Therefore, claims 1-20 are currently pending. Claims 3 and 5 are drawn to non-elected species and/or inventions, wherein the election was made with traverse in the reply filed on 12/01/2008, and thus these claims remain withdrawn from further consideration by the examiner, 37 CFR 1.142(b), there being no allowable generic claim. Accordingly, claims 1, 2, 4, and 6-20 are under consideration in this Office Action.

***Status of Claim(s) Objection(s) and /or Rejection(s)***

3. The objections of the drawings have been withdrawn in light of applicant's amendments of specification thereto.
4. The rejections of claims 2, 4, and 6-19 under 35 USC 112, second paragraph, as being indefinite have been withdrawn in light of applicant's amendments of claims 2, 4, 6-8, and 10-19 thereto.
5. The rejection of claims 1, 2, 4, 12, and 13 under 35 USC 102(b) as being anticipated by Matsuo et al. (US Patent Application Publication US 2002/0055938 A1) has been withdrawn in view of applicant's amendments of claim 1.

***New Rejection(s) – Necessitated by Amendment***

***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A. Claim 1 recites the limitation of ‘*the display displayer*’ is vague and indefinite for it is unclear as to the metes and bound of the structural feature for the instant claimed device(s). It is unclear whether this structural feature is synonymous with the instant claimed display, synonymous with the instant claimed displayer, or distinct structural feature that further define the instant claimed display. Moreover, the original specification does not define the structure feature of this limitation. Therefore, claim 1 and all its dependent claims are rejected under 35 U.S.C. 112, second paragraph.

B. Claim 1 recites the limitations of ‘*drive circuit*’ and ‘*driver*’. These limitations are vague and indefinite because it is unclear as to the metes and bound of the structural feature(s) for the instant claimed device(s). It is unclear whether these limitations refer to two distinct devices, the same device, or that the limitation of ‘*driver*’ is a distinct structural feature that further define the limitation of ‘*drive circuit*’. Moreover, the original specification does not define the structure feature(s) of these limitations. Consequently, claim 1 and all its dependent claims are rejected under 35 U.S.C. 112, second paragraph.

Art Unit: 2629

**C.** Claim 14 recites the limitation “*characteristics*” in line 2. There is insufficient antecedent basis for this limitation in the claim 13 for which it depend. It is unclear as to which claimed structural features as recited in instant claim 13, i.e. the plurality of switches or the data setter, does this limitation (“*characteristics*”) refers to. Thus, there is insufficient antecedent basis for this limitation in the claim 14; and claim 14 is rejected under 35 U.S.C. 112, second paragraph.

**D.** Claim 15 recites the limitation “*characteristics*” in line 2. There is insufficient antecedent basis for this limitation in the claim 13 for which it depend. It is unclear as to which claimed structural features as recited in instant claim 13, i.e. the plurality of switches or the data setter, does this limitation (“*characteristics*”) refers to. Thus, there is insufficient antecedent basis for this limitation in the claim 15; and claim 15 is rejected under 35 U.S.C. 112, second paragraph.

### ***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1, 2, 4, 12, and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Matsuo et al. (US Patent Application Publication US 2002/0055938 A1).

For ***claims 1, 2, 4, 12 and 13***, first the limitation of ‘the display displayer’ of claim 1 is interpreted to be a structural feature that is synonymous with the instant claimed displayer.

Here, Matsuo et al. disclose an electronic paper device (see e.g. Abstract; sections: [0002], [0009] thru [0014], and [0046] thru [0048]; figs. 1, 5, 9, and 25-29). As illustrated by figure 1 in general, the device comprises an electronic paper (ref. #101) of a flexible display medium and a cover (ref. #102) to which a plurality of electronic papers can be attached (see e.g. sections: [0046] thru [0053]). The electronic paper (ref. #101) (refers to instant claimed display) as shown by figures 3 and 25 comprises a display driver part (ref. #12) (refers to instant claimed driver) and a display unit (ref. #121) (refers to instant claimed displayer) that include a display sheet (ref. #A) and a luminous sheet (ref. #B) (see e.g. sections: [0089] thru [0097], and [0172] thru [0179]). The display sheet (ref. #A) comprises a plurality of row electrodes and a plurality of column electrodes arranged to form a matrix of pixels wherein each pixel includes a display medium (refers to instant claimed light-emitters) sandwiched between the row electrode and column electrode (refers to instant claimed switches) that turn on and off the display medium (see e.g. sections: [0089] thru [0097]; fig. 3). The type of display medium (refers to instant claimed light-emitters) includes liquid crystal or microcapsule containing dye material combined with charged particles (see e.g. sections: [0090], [0093], and [0094]). The display driver part (ref. #12) (refers to instant claimed driver/core) comprises a character storage means (ref. #42), an image storage means (ref. #43), a plurality of display driver (ref. #122) (refers to instant claimed drive circuit), and connecting terminal (ref. #13) (refers to instant claimed core member) that is fixed on a specific position of the electronic paper (ref. #101) and connects the electronic paper (ref. #101) to the cover (ref. #102) (see e.g. sections: [0061], [0062], [0079], and [0171] thru [0179]; figs. 12, 13, 25, and 29). The disclosures regarding the connecting terminal (ref. #13) (refers to instant claimed core member) imply that the display driver part (ref. #12) (refers

Art Unit: 2629

to instant claimed driver/core) has a structure that is less flexible than the display unit (ref. #121) (refers to instant claimed displayer) as claimed in instant claim 2; and that the core member being mounted in advance with the driver as claimed in instant claim 4. The character storage means (ref. #42) provided display-bit-data, which comprises pixel data and position data, to the display driver (ref. #122) wherein the display driver decode the display-bit-data and output the voltage corresponding to the decoded display-bit-data to the display unit part (ref. #121) for display (see e.g. sections: [0172] thru [0179]). This disclosure implies that the display driver of Matsuo et al. includes a data setter as claimed in instant claims 12 and 13.

Therefore, the device of Matsuo et al. does anticipate the instant claimed invention.

### ***Response to Arguments***

10. Applicant's arguments directed to the above 102(b) rejection were considered but they are not persuasive for the following reasons. Please note that the above rejection has been modified from its original version to more clearly address applicant's newly amended and/or added claims and/or arguments.

[1] Applicant contends that '*MATSUO fails to disclose a plurality of light-emitters, each light-emitter being a pixel, and fails to disclose a plurality of switches corresponding to the plurality of light-emitters, as explicitly recited in Applicants' independent claim 1*'. Thus, the reference of Matsuo et al. does not anticipate the instant claimed invention.

This is not found persuasive for the following reasons:

[1] The examiner respectfully disagrees. It is the examiner's position that the reference of Matsuo et al. does anticipate the instant claimed invention. First as defined by the original specification, the term '*light-emitter*' is a light emitting layer that is between the anode and the

Art Unit: 2629

cathode (see specification pg. 13, line 24 thru pg. 14, line 4). Here, Matsuo et al. disclose a display unit (ref. #121) (refers to instant claimed displayer) that include a display sheet (ref. #A) and a luminous sheet (ref. #B) wherein the display sheet (ref. #A) comprises a plurality of row electrodes and a plurality of column electrodes arranged to form a matrix of pixels wherein each pixel includes a display medium (refers to instant claimed light-emitters) sandwiched between the row electrode and column electrode (refers to instant claimed switches) that turn on and off the display medium (see e.g. sections: [0089] thru [0097]; fig. 3). Consequently, Matsuo et al. does teach the instant claimed *a plurality of light-emitters, each light-emitter being a pixel* since the definition of the term '*light-emitter*' would encompass the display medium of Matsuo et al.

Therefore, the teachings of Matsuo et al. do anticipate the device of the instant claims, and the rejection is maintained.

### ***Claim Rejections - 35 USC § 103***

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later



Art Unit: 2629

invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

13. Claims 1, 2, 4, 6-8, 12, 13, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuo et al. (US Patent Application Publication US 2002/0055938 A1) in view of Hirai et al. (US Patent 6,794,220 B2).

*For claims 1, 2, 4, 12, 13, and 20, first the limitation of 'the display displayer' of claim 1 is interpreted to be a structural feature that is synonymous with the instant claimed displayer.*

Here, Matsuo et al. disclose an electronic paper device (see e.g. Abstract; sections: [0002], [0009] thru [0014], and [0046] thru [0048]; figs. 1, 5, 9, and 25-29). As illustrated by figure 1 in general, the device comprises an electronic paper (ref. #101) of a flexible display medium and a cover (ref. #102) to which a plurality of electronic papers can be attached (see e.g. sections: [0046] thru [0053]). The electronic paper (ref. #101) (refers to instant claimed display) as shown by figures 3 and 25 comprises a display driver part (ref. #12) (refers to instant claimed driver) and a display unit (ref. #121) (refers to instant claimed displayer) that include a display sheet (ref. #A) and a luminous sheet (ref. #B) (see e.g. sections: [0089] thru [0097], and [0172] thru [0179]). The display sheet (ref. #A) comprises a plurality of row electrodes and a plurality of column electrodes arranged to form a matrix of pixels wherein each pixel includes a display medium (refers to instant claimed light-emitters) sandwiched between the row electrode and column electrode (refers to instant claimed switches) that turn on and off the display medium (see e.g. sections: [0089] thru [0097]; fig. 3). The type of display medium (refers to instant claimed light-emitters) includes liquid crystal or microcapsule containing dye material combined with charged particles (see e.g. sections: [0090], [0093], and [0094]). The display driver part

Art Unit: 2629

(ref. #12) (refers to instant claimed driver/core) comprises a character storage means (ref. #42), an image storage means (ref. #43), a plurality of display driver (ref. #122) (refers to instant claimed drive circuit), and connecting terminal (ref. #13) (refers to instant claimed core member) that is fixed on a specific position of the electronic paper (ref. #101) and connects the electronic paper (ref. #101) to the cover (ref. #102) (see e.g. sections: [0061], [0062], [0079], and [0171] thru [0179]; figs. 12, 13, 25, and 29). The disclosure regarding the connecting terminal (ref. #13) (refers to instant claimed core member) imply that the display driver part (ref. #12) has a structure that is less flexible than the display unit (ref. #121) (refers to instant claimed displayer) as claimed in instant claim 2; and that the core member being mounted in advance with the driver as claimed in instant claim 4. The character storage means (ref. #42) provided display-bit-data, which comprises pixel data and position data, to the display driver (ref. #122) wherein the display driver decode the display-bit-data and output the voltage corresponding to the decoded display-bit-data to the display unit part (ref. #121) for display via the row wiring (ref. #L2) and the column wiring (ref. #L1) (see e.g. sections: [0172] thru [0179]). This disclosure implies that the display driver of Matsuo et al. includes a data setter as claimed in instant claims 12 and 13. Additionally, this disclosure also suggests that the drive circuit comprises inorganic material as claimed in claim 20.

The teachings of Matsuo et al. differ from the presently claimed invention as follows:

For **claim 6**, Matsuo et al. fail to disclose that the switch comprises organic TFT (Thin Film Transistor).

However, Hirai et al. teach the limitations that are deficient in Matsuo et al. as follows:

Art Unit: 2629

For **claim 6**, Hirai et al. disclose an organic thin-film transistor and the method of making it (see e.g. Abstract; col. 2, line 31 thru col. 4, line 2). The thin-film transistor (TFT) are comprises of organic semiconductor layers (see e.g. col. 4, lines 44-67). Additionally, Hirai et al. disclose that it is art recognized in display device of a flat sheet type that employs display medium element such as liquid crystal, organic electroluminescent (EL), or electrophoretic methods that active driving element (TFT element) is use as an image displaying element (see e.g. col. 1, lines 23-32).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to disclose that the switch comprises organic TFT (Thin Film Transistor) as taught by Hirai et al. in the device of Matsuo et al. One of ordinary skill in the art would have been motivated to disclose that the switch comprises organic TFT (Thin Film Transistor) in the device of Matsuo et al. for the advantage of providing an improve characteristic of the TFT such that the cost of manufacturing is reduce and the manufacturing process is simplified (Hirai: col. 2, lines 25-30). Furthermore, one of ordinary skill in the art would have a reasonable expectation of success in the combination of Matsuo et al. and Hirai et al. because as disclose by Hirai et al. it is art recognized in display device of a flat sheet type that employs display medium element such as liquid crystal, organic electroluminescent (EL), or electrophoretic methods that active driving element (TFT element) is use as an image displaying element (see e.g. col. 1, lines 23-32) such that the type of TFT element use would be a design choice and is considered within the purview of the cited prior art.

For **claim 7**, Matsuo et al. fail to disclose that the driver comprises a crystal type CMOS-IC.

Art Unit: 2629

*However*, Matsuo et al. disclose that the display driver part (ref. #12) (refers to instant claimed driver/core) comprises a character storage means (ref. #42), an image storage means (ref. #43), a plurality of display driver (ref. #122) (refers to instant claimed drive circuit), and connecting terminal (ref. #13) (refers to instant claimed core member) that is fixed on a specific position of the electronic paper (ref. #101) and connects the electronic paper (ref. #101) to the cover (ref. #102) (see e.g. sections: [0061], [0062], [0079], and [0171] thru [0179]; figs. 12, 13, 25, and 29). The disclosure of a character storage means and an image storage means, i.e. a memory device, suggests that the display driver part (ref. #12) include an integrated circuit. As a result, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to disclose that the driver comprises a crystal type CMOS-IC in the device of Matsuo et al. since it is art recognized that there are a variety of different type of integrated circuits such that the type of integrated circuit use would be a design choice and is considered within the purview of the cited prior art.

For **claim 8**, Matsuo et al. fail to disclose that the core is provided with a power supply that supplies electric power to the plurality of light-emitters.

*However*, Matsuo et al. disclose that the pixels of the display unit (ref. #121) is driven by matrix control wherein voltage is provided to the row electrode and the column electrode by the display driver (ref. #122) that is located in the display driver part (ref. #12) (refers to instant claimed driver/core) (see e.g. sections: [0094] and [0177]). This disclosure suggests that the display driver part (ref. #12) is provided with a power source in order for the display driver (ref. #122) to provide voltages to the row electrode and the column electrode of the display unit (ref. #121). As a result, it would have been obvious to a person of ordinary skill in the art at the time

Art Unit: 2629

the invention was made to disclose that the core is provided with a power supply that supplies electric power to the plurality of light-emitters in the device of Matsuo et al. since it is art recognized that a power supply is require in order to provide voltages to the display driver.

Therefore, the combine teachings of Matsuo et al. and Hirai et al. do render the device of the instant claims *prima facie* obvious.

14. Claims 1, 2, 4, and 8-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuo et al. (US Patent Application Publication US 2002/0055938 A1) in view of Simoni et al. (US Patent 6,573,880 B1).

For **claims 1, 2, 4, 12 and 13**, first the limitation of 'the display displayer' of claim 1 is interpreted to be a structural feature that is synonymous with the instant claimed displayer.

Here, Matsuo et al. disclose an electronic paper device (see e.g. Abstract; sections: [0002], [0009] thru [0014], and [0046] thru [0048]; figs. 1, 5, 9, and 25-29). As illustrated by figure 1 in general, the device comprises an electronic paper (ref. #101) of a flexible display medium and a cover (ref. #102) to which a plurality of electronic papers can be attached (see e.g. sections: [0046] thru [0053]). The electronic paper (ref. #101) (refers to instant claimed display) as shown by figures 3 and 25 comprises a display driver part (ref. #12) (refers to instant claimed driver) and a display unit (ref. #121) (refers to instant claimed displayer) that include a display sheet (ref. #A) and a luminous sheet (ref. #B) (see e.g. sections: [0089] thru [0097], and [0172] thru [0179]). The display sheet (ref. #A) comprises a plurality of row electrodes and a plurality of column electrodes arranged to form a matrix of pixels wherein each pixel includes a display medium (refers to instant claimed light-emitters) sandwiched between the row electrode and

Art Unit: 2629

column electrode (refers to instant claimed switches) that turn on and off the display medium (see e.g. sections: [0089] thru [0097]; fig. 3). The type of display medium (refers to instant claimed light-emitters) includes liquid crystal or microcapsule containing dye material combined with charged particles (see e.g. sections: [0090], [0093], and [0094]). The display driver part (ref. #12) (refers to instant claimed driver/core) comprises a character storage means (ref. #42), an image storage means (ref. #43), a plurality of display driver (ref. #122) (refers to instant claimed drive circuit), and connecting terminal (ref. #13) (refers to instant claimed core member) that is fixed on a specific position of the electronic paper (ref. #101) and connects the electronic paper (ref. #101) to the cover (ref. #102) (see e.g. sections: [0061], [0062], [0079], and [0171] thru [0179]; figs. 12, 13, 25, and 29). The disclosures regarding the connecting terminal (ref. #13) (refers to instant claimed core member) imply that the display driver part (ref. #12) (refers to instant claimed driver/core) has a structure that is less flexible than the display unit (ref. #121) (refers to instant claimed displayer) as claimed in instant claim 2; and that the core member being mounted in advance with the driver as claimed in instant claim 4. The character storage means (ref. #42) provided display-bit-data, which comprises pixel data and position data, to the display driver (ref. #122) wherein the display driver decode the display-bit-data and output the voltage corresponding to the decoded display-bit-data to the display unit part (ref. #121) for display (see e.g. sections: [0172] thru [0179]). This disclosure implies that the display driver of Matsuo et al. includes a data setter as claimed in instant claims 12 and 13.

The teachings of Matsuo et al. differ from the presently claimed invention as follows:

For **claim 8**, Matsuo et al. fail to disclose that the core is provided with a power supply that supplies electric power to the plurality of light-emitters.

Art Unit: 2629

*However*, Matsuo et al. disclose that the pixels of the display unit (ref. #121) is driven by matrix control wherein voltage is provided to the row electrode and the column electrode by the display driver (ref. #122) that is located in the display driver part (ref. #12) (refers to instant claimed driver/core) (see e.g. sections: [0094] and [0177]). This disclosure suggests that the display driver part (ref. #12) is provided with a power source in order for the display driver (ref. #122) to provide voltages to the row electrode and the column electrode of the display unit (ref. #121). As a result, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to disclose that the core is provided with a power supply that supplies electric power to the plurality of light-emitters in the device of Matsuo et al. since it is art recognized that a power supply is require in order to provide voltages to the display driver.

For **claims 9-11**, Matsuo et al. fail to disclose the type of power supply as claimed in claims 9-11.

However, Simoni et al. teach the limitations that are deficient in Matsuo et al. as follows:

For **claims 9-11**, Simoni et al. disclose an electronic paper device (see e.g. Abstract; col. 2, lines 30-40; col. 2, line 66 thru col. 4, line 47). The device comprises a display media (ref. #10) and a control circuitry (ref. #24) that drive the display media (see e.g. col. 4, lines 6-47; fig. 1). The display media (ref. #10) comprises a layer of sheet media (ref. #26) sandwiched between two electrodes that turn on and off the sheet media, which are microcapsules containing dye material combined with charged particles (see e.g. col. 2, line 66 thru col. 4, line 5; col. 4, line 66 thru col. 5, line 65; col. 6, lines 5-52; fig. 2). The control circuitry (ref. #24) comprises the array of drivers (ref. #12) and the power supply (ref. #16) (see e.g. col. 4, lines 6-34; fig. 1). The type

Art Unit: 2629

of power supply includes ambient energy receiver such as solar cells, battery, or a connection to a power source such as an electrical wall socket (see e.g. col. 4, lines 35-65).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to disclose the type of power supply as claimed in claims 9-11 as taught by Simoni et al. in the device of Matsuo et al. One of ordinary skill in the art would have been motivated to disclose the type of power supply as claimed in claims 9-11 in the device of Matsuo et al. since it is art recognized that a power supply is require in order to provide voltages to the display driver such that the type of power supply use would be a design choice and is considered within the purview of the cited prior art. Additionally, both Matsuo et al. and Simoni et al. disclose that the type of display medium is microcapsule containing dye material combined with charged particles (Matsuo: section [0093]; Simoni: col. 3, line 10 thru col. 4, line 17). Furthermore, one of ordinary skill in the art would have a reasonable expectation of success in the combination of Matsuo et al. and Simoni et al. because Simoni et al. disclose that any type of power supply can be use in the display device, i.e. the electronic paper device, since the only requirement is that a voltage source to the drivers (Simoni: col. 5, lines 23-25).

Therefore, the combine teachings of Matsuo et al. and Simoni et al. do render the device of the instant claims *prima facie* obvious.

### ***Conclusion***

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).



Art Unit: 2629

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MY-CHAU T. TRAN whose telephone number is (571)272-0810. The examiner can normally be reached on Monday: 8:00-2:30; Tuesday-Thursday: 7:30-5:00; Friday: 8:00-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard A. Hjerpe can be reached on 571-272-7691. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2629

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/MY-CHAU T. TRAN/  
Primary Examiner, Art Unit 2629

July 31, 2009